

REMARKS

This letter is responsive to the final office action dated March 21, 2008.

Applicants thank Examiner Recek for noting the clerical error in claim 6, which has been corrected in the current amendment. The inadvertent omission of the phrase "an input to" in claims 1, 15 and 17 has also been corrected (see paragraph [0083] of the Applicants' description). No new matter has been added.

Claims 1-6, 11-12 and 15-17 remain in the application.

Rejections Under 35 USC 101

Claims 15-17 stand rejected under 35 USC 101 as being directed to non-statutory subject matter.

With respect to the objections to apparatus claims 15 and 16, the Applicants respectfully disagree that the claim is directed merely to software. As depicted in Figure 2 and as recited in claim 16, the apparatus may be a mobile device. The mobile device may comprise processing means, such as microprocessor 238 (Figure 2), adapted to perform certain functions. Accordingly, the claimed elements are embodied in functional physical hardware components, and do not exist merely as software.

In response to the Examiner's objection to Claim 17, the claim has been amended to recite a tangible computer-readable medium.

Withdrawal of the rejections under 35 U.S.C. 101 is respectfully requested.

Rejections Under 35 U.S.C. 102

In the office action, the Examiner has withdrawn all rejections to the claims as being anticipated by Stelting. The Examiner has now rejected claims 1-6, 11-12 and 15-17 as being anticipated by U.S. Patent Publication No. 2004/0148334 A1 in the name of Arellano et al. ("Arellano"). Applicants respectfully traverse all rejections.

First, Arellano teaches the use of an agent coordination logic module that determines whether the implementation of an independent web service can be coordinated with the implementation of another independent web service to provide an enhanced web service (see e.g. Arellano, Abstract, [0018]). To the extent that Arellano teaches determining whether first and second web services can be coordinated ("aggregated"), one might consider the general objective of the methodology taught by Arellano and that of the Applicants' claimed method to be consistent. However, the specific techniques as taught by Arellano and as claimed by the Applicants to obtain that objective are very different.

At page 4 of the office action, the Examiner notes that Arellano discloses "a coordination platform that determines whether web services can be coordinated". However, this feature is common to any methodology that generally teaches aggregation of web services. It is clear from the description of Arellano that the *specific* way in which Arellano determines whether web services can be coordinated is by considering "ontological descriptions" of web services, by e.g., a shared ontology module 110 (see e.g. Arellano, Abstract, [0030], [0051]). The methodology implemented by Arellano's shared ontology module differs from the Applicants' claimed method, as explained below.

Arellano teaches that the "agent coordination logic module dynamically coordinates implementation of the web service by an agent with the implementation of another web service by another agent according to ontological descriptions of the web services and the other web service" [emphasis added] (see Arellano, Abstract, [0018]). What is meant by "ontological descriptions" is described in detail in paragraphs [0047] to [0053]. For example, at paragraph [0047], Arellano teaches that "the shared ontology module 110 defines an ontology of representational terms with axioms that govern interpretation of each term, as well as text that describes the terms... The shared ontology is used to guarantee that the agent coordination platform 220 and multiple agents 210 are provided with a common interpretation of representational terms, e.g. using the same language and vocabulary or a set of languages with overlapping but non-identical vocabulary". Furthermore, at paragraph [0050], Arellano teaches that "the shared ontology module 110 examines and defines services according to a content markup language... an ontological XML-based description of the services may be generated by the shared ontology module 110, forwarded to the agents 210 on the devices... and used by the agent coordination platforms 220 on the devices... to dynamically coordinate the execution of the services".

Arellano's methodology focuses on the manner in which services are defined, and in particular, the text-based descriptions of those services (e.g. in XML) in the coordination of the services. It appears that Arellano provides a way that allows different descriptive terms used in different service descriptions to be interpreted in the same way when appropriate. With Arellano's focus on the language used to describe services, the methodology taught by Arellano may share certain similarities with an embodiment taught by the Applicant in which aggregation is inferred from the structure of a WSDL file, as originally claimed by the Applicant in claim 9, and as taught by the Applicant at paragraphs [0060], [0064]-[0076], and Figure 5 of the Applicant's description. However, the claims

currently under consideration before the Examiner exclude this embodiment, and claim 9 stands cancelled without prejudice.

In contrast to methods where new web services may be generated directly from the contents of web service descriptions, the subject matter of the current claims are generally directed to a method where aggregation of web services is user-driven (see e.g. Applicant's description, paragraph [0061], and Figure 6 and accompanying description), and more specifically, by monitoring input data obtained and output data displayed through one or more user interfaces to identify patterns in the input data and the output data. Put another way, relationships between web services are inferred from user actions.

As the Examiner will appreciate, a single prior art reference anticipates a patent claim if it expressly or inherently describes each and every limitation set forth in the patent claim. Trintec Indus. Inc. v. Top-U.S.A. Corp., 63 USPQ2d 1597, 1599 (Fed. Cir. 2002).

Independent claim 1 specifically requires:

monitoring said input data obtained and said output data displayed through said one or more user interfaces to identify patterns in said input data and said output data that suggest that an input to a first web service of said plurality of web services is obtainable from output of a second web service of said plurality of web services... [emphasis added]

Similar features are recited in independent claims 15 and 17. As noted above, even if Arellano were considered to generally teach determining whether an input to a first web service is obtainable from output of a second web service (which the Applicants do not concede), Arellano clearly does not teach monitoring input data obtained and output data displayed through one or more user interfaces in doing so. Furthermore, even if Arellano were considered to teach identifying

patterns generally (e.g. from ontological descriptions of web services), Arellano clearly does not specifically teach identifying patterns in said input data and said output data (i.e. patterns in the monitored input and output data). Accordingly, the Examiner has yet to satisfy the burden of proof required to reject independent claims 1, 15 and 17 as being anticipated by Arellano.

It is respectfully noted that Arellano method is similar to that taught by Stelling in that, as discussed in the previous response, any resultant new web service would neither reflect nor be able to adapt to an individual user's web service consumption patterns.

In view of the foregoing clarifications, it is also clear that the specific example embodiments in which patterns are identified as claimed in claims 11 and 12 are also not disclosed in Arellano. Paragraph [0069] of Arellano clearly indicates that the module dynamically coordinates execution of multiple services according to the specification information of the services as described by the shared ontology module, which is distinguishable from the subject matter of the Applicants' claims as noted above. Paragraphs [0082] and [0083] of Arellano disclose that input (i.e. user instructions) may be accepted by the device and that output of services may be displayed by the device. However, Arellano does not specifically disclose the identification of patterns in that user input and output, nor does Arellano disclose the specific act of detecting when output from one service matches input in, or is copied to, an input field for invoking another web service.

For the above reasons, it is respectfully submitted that Arellano does not disclose all of the features of the independent claims, and accordingly, does not anticipate the subject matter of the independent claims. It is further submitted that Arellano also does not anticipate the subject matter of the dependent claims that remain of record for at least the same reasons. Withdrawal of the rejections under 35 U.S.C. 102 is respectfully requested.

In view of the foregoing clarifications, Applicants respectfully submit that each of claims 1-6, 11-12, and 15-17 is in form for allowance, and a notice to that effect is respectfully requested.

Should there be any remaining issues after this amendment, the Applicants respectfully request an interview with Examiner Recek to resolve such issues and expedite prosecution of the present application.

Respectfully submitted,
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